The White-letter Hairstreak: *Strymonidia w-album* Knoch

By A. Archer-Lock*

Following the apparent extinction of the Large Blue in England during 1979, one wonders whether this hairstreak will be the next on the list? All my contacts suggest a drastic decline or complete disappearance even from several of those localities renowned for an abundance of the species.

Somewhat ironically, for so many of the earlier recognised authorities have declared the butterfly to be absent from Cornwall, I found a colony in the west of that county during 1980. Other colonies have of course existed in Cornwall, Mr. John Heath having seen it near Falmouth some years ago, while, until recently, another quite strong colony survived near Bodmin upon wych elms beneath which the china clay trains rumbled.

The new discovery, which followed a sighting elsewhere of one specimen on bramble, and which lacked the white 'W', is based on a wych elm still fortunately free of disease. High above the murmuring millstream the butterflies feed on the honeydew-coated leaves of the surrounding alders and ash trees, seldom resorting to their birthplace except for courtship. Although these trees adjoin a natural rough meadow richly endowed with knapweed, hogweed, thistles, and bramble blossom, all of which are available within a few paces of the trees, the butterflies choose to stay as high as possible whatever the weather, occasionally a pair spiralling skywards before separating to dart back to the foliage.

This same reluctance to come down to blossoms was true of two colonies close to Plymouth, both now sadly extinguished. In one case, some fine privet bushes stood within twenty feet of the wych elm but were ignored day after day, as indeed was an abundance of bramble most invitingly on display at close quarters. Perhaps this is a West Country characteristic of the species, for one reads and hears of frequent visits to these favourite blooms elsewhere.

My own experience is that a colony either deserts or fails to breed on a tree well before elm disease has substantially destroyed it. Certainly the butterfly wanders, for one was found by a son of mine on a busy city centre pavement in Plymouth, and another in the centre of Bath. But one never hears of proved cases of newly colonised trees.

These comments are really offered in the nature of a short inquiry, upon which, if readers with recent experience would care to comment, such views and experience would be appreciated. A synopsis of these results would be forwarded to the Editor.

1. Does anyone know of a really thriving colony of *Strymonidia w-album* still in existence? (the county would be interesting).

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2. Has anyone come across new colonisation?
3. Is elm disease the over-riding factor for decline, or are others suggested by evidence? (i.e. trees still surviving).
4. Has anyone actual proof that the species has bred successfully in the wild on elm other than wych elm?

Notes and Observations

PARTHENOGENESIS. — In reply to M. J. Symes' note (*Ent. Rec.* **92**: 52-53), parthenogenesis would seem to be responsible from the eggs produced from his female of *Selenia bilunaria.* He is right in assuming that the ova were almost certainly diploid, but this does not mean that all offspring are necessarily genetically identical. Many Psychidae have been shown to undergo automictic (meiotic) parthenogenesis, in which a normal reduction division occurs, but two of the (haploid) nuclei then fuse to restore the diploid number of chromosomes. This process is clearly comparable with the fusion of two gametes from different individuals, and will produce genetic variation amongst the offspring, since the reduction nuclei from a single organism are not all identical.

The sudden death of the larvae may also be attributable to parthenogenesis.In the first instar larvae of the locust *Schistocerca,* mortality is very high when they have been produced parthenogenetically. It seems that, in general, viability is much lower when parthenogenesis occurs. It is probably for this reason that the phenomenon is fairly rare: it is only likely to occur in those species living in relatively patchy habitats, the only situation in which it is of possible advantage, since it then allows rapid colonization of a new patch following invasion by a single individual. Furthermore, a patchy environment makes finding a mate difficult, so adding to the advantage of parthenogenesis. Reference: R. F. Chapman, 1971. *The Insects,* second edition. — P. J. JOHNSON, 7, Haverhill Road, Horseheath, Cambridge, CB1 6QR.

UNUSUAL BEHAVIOUR OF MOMPHA NODICOLELLA FUCHS (LEP.: MOMPHIDAE). — During the afternoon of 1st August 1980, I observed about a dozen small moths of the family Momphidae at St. Mary Magdalene Churchyard Museum Nature Reserve, London, E.6, engaging in a rather curious activity, which I have not previously observed. The moths were all upon the vertical, west facing surface of a limestone grave-stone, which was much weathered and extremely eroded in most parts. The air-temperature was approximately 22°C, and the sun shone directly onto the west face of the stone, and hence upon the moths.

Each of the moths was engaged in what I have called 'spiralling': that is, turning around by the motion of their legs in a tight circle, but with their heads remaining fixed so that the distal tip of the abdomen described an arc of 360 degrees around the head. I watched this behaviour for about